SEAL)

COMMONWEALTH OF MASSACHUSETTS
Land Court
Department of the Trial Court
10 MISC 429867 (AHS)

NEWPORT MATERIALS, LLC, and 540 GROTON ROAD, LLC,
Plaintiffs,
vs.

MICHAEL GREEN, ANDREA PERANER SWEET, FREDERICK PALMER, DENNIS GALVIN and KEVIN BORSELLI, in their capacity as members of the PLANNING BOARD OF THE TOWN OF WESTFORD, and not individually, and the TOWN OF WESTFORD,
Defendants.

DECISION

This case involves a dispute between plaintiffs Newport Materials, LLC ("Newport") and 540 Groton Road, LLC ("Groton") (together, "Plaintiffs") and defendants Members of the Planning Board of the Town of Westford (the "Board") and the Town of Westford ("Westford" or the "Town") (together, "Defendants") regarding the Board's denial of Newport's applications for approval of a plan to develop an asphalt manufacturing facility on industrial property owned by Groton and leased to Newport. The issues in this case have been extensively briefed by the parties, both pre- and post-trial, and the court has had the benefit of expert testimony submitted by both parties. After considering the evidence adduced at trial, as well as the filings of the parties, it is the decision of this court that the Board's denials of Plaintiffs' applications are upheld -- albeit for reasons different than those stated in said denial decisions -- and the matter is remanded to the Board for further proceedings consistent with this decision.

Procedural History

Plaintiffs filed their unverified complaint on May 18, 2010, by which they (a) appealed, pursuant to G. L. c. 40A, § 17, the decision of the Board to deny two special permits and a site plan review in connection with Newport's proposed development of an asphalt manufacturing facility (the

"Project") at Locus (defined below);[1] (b) sought a judicial determination, pursuant to G. L. c. 240, § 14A, with respect to certain provisions of the Town of Westford Zoning Bylaw (the "Bylaw") relative to the definitions of "light manufacturing" uses and MCPs; and (c) sought a declaratory judgment, pursuant to G. L. c. 231A, as to whether the Project constituted a "light manufacturing" use and/or an MCP.[2] A case management conference was held on June 30, 2010. Defendants filed their Answer to First Amended Complaint on July 13, 2010. On July 29, 2010, would-be intervenors Michael Donnelly, Marie Burnham and John Pecora filed a motion to intervene in this case, which was denied by Order dated August 12, 2010.

Plaintiffs filed their Motion for Partial Summary Judgment on September 13, 2010, together with a supporting memorandum, a statement of material facts, and appendices containing Affidavits of Marc J. Goldstein, Esq., Brian C. Levey, Esq., Douglas C. Deschenes, Esq., Christopher M. Lorrain, P.E., and Richard A. DeFelice (Newport's principal). On October 28, 2010, Defendants filed their opposition to Plaintiff's summary judgment motion, together with a supporting memorandum, a statement of additional facts, and an appendix, which contained Affidavits of Robert J. Michaud, P.E., and Matthew Hakala (the Town's Building Commissioner). Plaintiffs filed their reply brief on November 8, 2010, together with Affidavits of James E. Winn, P.E., John G. MacLellan III (the principal of an abutter to Newport), and a Supplemental Affidavit of Richard A. DeFelice.

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[1] Specifically, on April 20, 2010, the Board issued decisions denying Newport's proposed site plan for the Project (the "Site Plan Review Decision"), Newport's application for a major commercial project ("MCP") special permit, and Newport's application for a Water Resource Protection Overlay District ("WRPOD") special permit.

[2] Plaintiffs filed their First Amended Complaint on June 16, 2010. Pursuant thereto, Plaintiff's Count IV was amended to include "[t]he LLC is entitled to a determination of the validity of §§ 9.3A, 10.2 and Appendix A, Table of Principal Use Regulations of the Bylaw, and/or the extent to which §§ 9.3A, 10.2 and Appendix A, Table of Principal Use Regulations of the Bylaw, affect the Project; to wit, the requirement of these provisions of the Bylaw that all commercial or industrial uses permitted by-right obtain a MCP Special Permit is invalid and/or the Project does not require a MCP Special Permit." Count V was amended to include "[a]n actual controversy exists between Newport and the Planning Board regarding whether §§ 9.3A, 10.2 and Appendix A, Table of Principal Use Regulations of the Bylaw are lawful and/or Newport is required to seek and obtain a MCP Special Permit for the Project. Newport contends that the requirement of these provisions of the Bylaw that all commercial or industrial uses permitted by-right obtain a MCP Special Permit is unlawful and/or the Project does not require a MCP Special Permit and the Planning Board disagrees."

Also on November 8, 2010, Plaintiffs filed a motion to strike portions of the Affidavit of Robert J. Michaud, P.E. On November 30, 2010, Defendants filed their opposition to this motion to strike, as well as a supplemental memorandum in opposition to Plaintiff's summary judgment motion and Supplemental Affidavit of Robert J. Michaud, P.E.

A hearing on both motions was held on December 1, 2010, and the matters were taken under advisement. On December 10, 2010, Plaintiffs filed a reply to Defendants' November 8, 2010 supplemental submissions, together with a second supplemental Affidavit of Richard A. DeFelice. Subsequently, both parties filed a number of letters (on December 13 and 22, 2010, and on January 3, 2011) with this court, by which they attempted to clarify their supplemental submissions.

On August 15, 2011, the court issued a decision on Plaintiffs' motion for summary judgment ("Land Court Decision 1"), (a) finding that the Board had the authority to determine whether the proposed use of Locus (defined below) was an as of right use, (b) finding that G. L. c. 40A, § 4 invalidated Section 10.2 of the Bylaw (pertaining to special permits for MCPs), (c) remanding to the Board the issue of whether the Board properly denied Newport's WRPOD special permit application, and (d) attempting to clarify the issue of whether the Project was a "light manufacturing" use.[3]

Following Land Court Decision 1, on October 14, 2011, the parties filed a joint stipulation, in which they stipulated (a) that only Section 10.2(d) of the Bylaw (defining MCPs) was invalidated, (b) that no issues would be remanded to the Board at that time, and (c) that Plaintiffs would be allowed to file a second amendment to their complaint.[4]

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[3] The court's decision did not remand the Board's denial of Newport's MCP special permit application because it invalidated Section 10.2 of the Bylaw (pertaining to the definition of MCPs), and therefore found it unnecessary to determine the merits of that denial.

[4] Specifically, Paragraph 3 of the parties' joint stipulation stated:

> The parties stipulate and agree that in light of the Court's Rule 56 Decision there is no need to remand to the Westford Planning Board any of its decisions regarding Newport Materials on either Site Plan Review, WRPOD Special Permit or MCP Special Permit and the case should proceed to discovery and trial provided, however, that

Plaintiffs filed their Second Amended Complaint on October 14, 2011, in which they (a) argued that the Project (in addition to qualifying as an of right "light manufacturing" use) also qualified under Section 10.2 of the Bylaw as "quarrying [and] mining", (b) challenged the validity of a portion of the Bylaw's definition of "light manufacturing" and the construction of that definition, and (c) contested the validity of the thresholds use in the Bylaw to trigger the requirement to apply for an MCP special permit. The parties thereafter filed a Stipulation of Dismissal of Counts VI and VII of the Second Amended Complaint (dealing with the "light manufacturing" definition's Prohibition Clause -- defined below) on November 13, 2012.[5] On November 30, 2011, Defendants filed their Answer to Second Amended Complaint.

At a status conference held on January 25, 2013, the parties could not resolve their differences as to whether a trial or summary judgment hearing was necessary to resolve the remaining issues. Defendants filed a motion for summary judgment on April 22, 2013, together with a supporting memorandum, statement of material facts, and the Affidavit of Dr. K. Wayne Lee, P.E. On May 2, 2013, Defendants filed the Affidavit of Robert J. Michaud, P.E. On May 17, 2013, Plaintiffs filed their opposition to Defendants' motion for summary judgment, together with a supporting memorandum, statement of additional facts, and an appendix. At a status conference on May 28, 2013, the court determined that a trial would be necessary, since many facts remained in dispute. As such, in anticipation of trial, the parties filed a joint pre-trial memorandum dated August

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a. No party is agreeing in advance to the scope or extent of discovery.
b. No party is foreclosed from filing a dispositive motion at any point with respect to the Second Amended Complaint except as may be limited by the Court . . . ; and
c. No party is waiving any argument that it may have with respect to the appropriate remedy in the event the court overturns any portion of any of the Planning Board's decisions.

[5] Counts VI and VII had requested a judicial determination and declaratory judgment that the Prohibition Clause (defined below) -- which prohibited "any light manufacturing business, the conduct of which may be detrimental to the health, safety or welfare of persons working in or living near the proposed location of such manufacturing, including, without limiting the generality of the foregoing, special danger of fire or explosion, pollution of waterways, corrosive or toxic fumes, gas, smoke, soot, dust or foul odors and offensive noise and vibrations" -- was void for vagueness or otherwise unsupported by any rational basis, and should be invalidated.

23, 2013, in which they reached an agreement as to some of the disputed facts, and agreed to the dismissal of Counts XII and XIII of Plaintiff's Second Amended Complaint, which had attacked the validity of section 10.2 of the Bylaw defining MCP special permit thresholds.[6]

A pre-trial conference was held on August 27, 2013. On October 17, 2013, Plaintiffs filed their Omnibus Motion in Limine and Defendants filed four motions in limine. A hearing on all motions in limine was held on October 24, 2013, on which date the court denied Defendants' Motion in Limine to Exclude Testimony and Evidence Pertaining to the Off-site Measurement of Sound, denied Defendants' Motion in Limine to Exclude Non-binding Unenforceable Stipulations, and allowed Defendants' Motion in Limine to Exclude All Evidence Concerning the Concrete Plant

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[6] Following the parties' October 14, 2011 joint stipulation and their pre-trial memorandum, the following is the status of the Counts in Plaintiff's Second Amended Complaint:

- Count I: Appeal of Decisions (G.L. c. 40A, §17) (The Board's denials "exceeded the authority of the [Board] and were arbitrary and capricious and [sic] legally untenable.")
- Count II: Petition for Judicial Determination (G.L. c. 240, § 14A) (Plaintiffs are entitled to a "determination of . . . whether the Project is a 'Light Manufacturing' use allowed by right in the IA zoning district.")
- Count III: Declaratory Judgment (G. L. c. 231A, §§ 1-2) ("[T]he Project is a Light Manufacturing use under the Bylaw.")
- Count IV: Petition for Judicial Determination (G.L. c. 240, § 14A) (Plaintiffs are entitled to a "determination of . . . whether the Project is a '[q]uarrying [and] mining' use allowed by right in the IA zoning district.")
- Count V: Declaratory Judgment (G. L. c. 231A, §§ 1-2) ("[T]he Project is a "[q]uarrying [and] mining' ('the extraction of rock and the processing and finishing of the product hereof, rock crushing, lime kilns, lumbering') use under the Bylaw.")
- Count VI: Voluntarily dismissed
- Count VII: Voluntarily dismissed
- Count VIII: Petition for Judicial Determination (G.L. c. 240, § 14A) (Plaintiffs are entitled to a "determination of . . . whether the Prohibition Clause must be interpreted reasonably and in such a way that an applicant can understand its meaning including, but not limited to, reliance on recognized industry or regulatory standards.")
- Count IX: Declaratory Judgment (G. L. c. 231A, §§ 1-2) ("[T]he Light Manufacturing definition must be interpreted reasonably and in such a way that an applicant can understand its meaning including, but not limited to, reliance on recognized industry or regulatory standards.")
- Count X: Petition for Judicial Determination (G.L. c. 240, § 14A) (Plaintiffs are entitled to a "determination of [whether] the Project does not require a MCP Special Permit.")
- Count XI: Declaratory Judgment (G. L. c. 231A, §§ 1-2) ("[T]he Project does not require a MCP Special Permit.")
- Count XII: Voluntarily dismissed
- Count XIII: Voluntarily dismissed

Notably, Count VIII refers to "the Prohibition Clause". It appears that the intended reference here was actually the Bylaw's definition of "light manufacturing". The court interprets Count VIII as such for purposes of this Decision.

Located at 520 Groton Road.[7]

A site view and trial were held on November 4-6, 2013; the first day of trial was held at Middlesex County Superior Court in Woburn, Massachusetts, and the second and third days at the Land Court in Boston. Testimony at trial for Plaintiffs was given by Richard DeFelice (Newport's principal), Christopher M. Lorrain (civil engineer), John G. MacLellan, III (principal of the company that owns the Fletcher Quarry, defined below), Brion Koning (acoustic consultant), and James D. Fitzgerald (traffic engineer). Testimony for Defendants was given by CarolineI. Kluchman (the Town's Director of Land Use Management), James D. Barnes (civil engineer) and Robert J. Michaud (transportation engineer).[8] Sixty-five agreed-upon exhibits were submitted into evidence.

Post-trial briefs were filed on February 21, 2014, and Plaintiffs filed a supplemental post-trial brief in response to Defendants post-trial brief on March 24, 2014. Also on February 21, 2014, Defendants moved to strike portions of the Affidavit of Denis R. J. Roy ("Roy") and the exhibits annexed thereto. This motion is decided below.

Based on the pleadings, the evidence submitted at trial, the parties' pre- and post-trial filings, as well as the reasonable inferences drawn therefrom, I make the following findings of fact.

The Properties at Issue

1. Groton is the owner of a 115.52 acre parcel located at 540 Groton Road (the "Groton Parcel") located near the northeast corner of Westford, Massachusetts. The Groton Parcel is irregularly-shaped (resembling, roughly, a backwards C-shape wrapping around its neighbor to the

[7] The court declined to rule on Defendants' Motion in Limine to Exclude Evidence or Argument Pertaining to the Planning Board Public Hearing Process, opting instead to make individual rulings at trial on the evidentiary issues implicated by that motion, based upon the parties' objections related to relevance and/or hearsay. The court, in general, excluded evidence relating to the public hearing process before the Board, except where such information was helpful in providing insight as to the background of the Project.

[8] The parties agreed to submit affidavits and deposition transcripts for expert witnesses Denis R. J. Roy (engineer), Kang-Won Wayne Lee (civil and environmental engineer), and Terry S. Szold (professor of urban studies and planning) in lieu of taking their testimony at trial.

west), and is bounded by Route 40 to the south, an operating quarry to the west, an industrial lot and Route 3 to the east, and vacant industrial land to the north. The eastern side of the Groton Parcel extends into the adjacent town of Chelmsford.

2. No land used for residential purposes directly abuts the Groton Parcel. Abutting the Groton Parcel to the west is a 163 acre property located at 534 Groton Road, which is the site of the Fletcher Quarry, a 300+ foot deep open rock quarry that is over 100 years old (the "Fletcher Quarry"). Current uses of the Groton Parcel include a large solar electric generation facility, an office building, a rock-crushing facility, and the storage of granite materials.

3. Newport is the lessee of approximately eight acres of the Groton Parcel (the "Newport Parcel"). The Newport Parcel is located near the middle of the Groton Parcel at its westerly boundary, directly abutting the Fletcher Quarry. Newport currently operates the above-noted rock-crushing facility on the Newport Parcel under a special permit to operate as a pre-existing non-conforming use, subject to certain conditions relating to traffic and hours of operation.

The Project

4. The Project is a proposed asphalt (also known as "bituminous concrete") plant to be located on an approximately two acre portion of the Newport Parcel ("Locus"), which would involve the installation and operation of an outdoors "skidded ultraplant" comprised of various industrial equipment, including a hot mix asphalt drum, a #2 fuel oil storage tank, a hot oil heater, various storage tanks and silos, a sixty-eight foot venting stack, conveyers, a process control center, and a materials processing yard. The Project would employ up to three employees and is intended to operate as a single shift operation running from 6:00 A.M. to 7:00 P.M., Monday through Saturday, with operations closed between December 15 and March 15 of each year. As proposed, the maximum potential production capacity of the Project would be 400 tons of finished asphalt per

hour, and 5,000 tons per diem; however, per the Massachusetts Department of Environmental Protection ("MassDEP") permit approval for the Project, output is limited to 60,000 tons per month and 300,000 tons per annum.

5. Materials needed for the Project to produce asphalt include aggregate (i.e., minerals, such as rock, gravel, and sand) and liquid bitumen, which are mixed to create asphalt (i.e., bituminous concrete). This mixture can be supplemented with crushed recycled asphalt product ("RAP"), which, pursuant to the MassDEP permit, can constitute up to 40% of the final product. Plaintiffs intend to obtain 50% or more of the needed aggregate from the adjacent Fletcher Quarry (via non-public roads between Locus and the Fletcher Quarry), but is under no contractual obligation to do so; the balance of the aggregate would come from off-site sources. Any RAP used would come from off-site.

6. Briefly stated, the proposed process for the production of the bituminous concrete at the Project is as follows: first, the necessary materials would be transported to the Project by truck; next, aggregate stored in bins would be deposited by conveyers into a mixer to be dried, heated, and then mixed with recycled dust and RAP; finally, liquid bitumen would be added to create the final product (bituminous concrete), which would be transported by conveyers into holding tanks for storage until dispensed into heavy-duty trucks for off-site distribution.

Relevant Zoning Regulations

7. Section 1.3 of the Bylaw states that the purpose of the Bylaw is:

> to lessen congestion in the streets; to conserve health; to secure safety from fire, flood, panic and other dangers; to provide adequate light and air; to prevent overcrowding of land, to avoid undue concentration of population; to encourage housing for persons of all income levels; to facilitate the adequate provision of transportation, water, water supply, drainage, sewerage, schools, parks, open space and other public requirements; to conserve the value of land and buildings, including the conservation of natural resources and the

> prevention of blight and pollution of the environment; to encourage the most appropriate use of land throughout the town, including consideration of the recommendations of the most recent Master Plan adopted by the Planning Board and the comprehensive plan, if any, of the regional planning agency; and to preserve and increase amenities by the promulgation of regulations to fulfill said objectives.

8. Section 9.3A.1(2) of the Bylaw provides, specifically with respect to noise (in the context of MCPs), that the goal of regulating the sound that a proposed use would generate is to "reduce noise pollution in order to preserve and enhance the natural and aesthetic qualities of the Town; preserve property values; and preserve neighborhood character." Section 9.3A.4(2)(A) -- which establishes performance standards for MCPs -- specifically provides that such sound should be "measured at the property boundary of the receiving land use."

9. Pursuant to Appendix A of the Bylaw, Locus is located in an Industrial A ("IA") zoning district, in which "quarrying [and] mining" and "light manufacturing" (among other uses not relevant to this case) are allowed as of right. Section 10.2 of the Bylaw defines "quarrying [and] mining" as "the extraction of rock and the processing and finishing of the products hereof, rock crushing, lime kilns, [and] lumbering." "[L]ight manufacturing" is defined as: "fabrication, assembly, processing or packaging operations employing only electric or other substantially noiseless and inoffensive motor power, utilizing hand labor or quiet machinery and process . . . ."[9] [10]An exception to the rule that light manufacturing is permitted of right in an IA zoning district is if the

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[9] The remainder of this provision sets forth an additional restriction prohibiting uses that are detrimental to health or safety (the "Prohibition Clause"). The parties have stipulated that the Project is not in violation of the Prohibition Clause.

[10] In order to analyze this provision, some of the terms contained therein must be defined. "Processing" is defined as "1. A series of actions, changes, or functions bringing about a result. . . . 2. A series of operations performed in the making or treatment of a product . . . ." AM. HERITAGE DICTIONARY (5th Ed. 2014) (*available at* http://ahdictionary.com). Defendants' expert, Terry Szold, seemed to concede, in his testimony, that the Project would satisfy this definition. "Substantial" is defined as "[c]onsiderable in importance, value, degree, amount, or extent". Id. "Noiseless" is defined as "[h]aving or making no noise". Id. "Inoffensive" is defined as "[ ] Giving no offense; unobjectionable. [ ] Causing no harm; harmless." Id. "Inoffensive" is defined as "[ ] Giving no offense; unobjectionable. [ ] Causing no harm; harmless." Id. "Quiet" is defined as "[m]aking or characterized by little or no noise". Id. "Noise" is defined as "[s]ound or a sound that is loud, unpleasant, unexpected, or undesired". Id.

operation employs "not more than four employees", in which case it would be prohibited.

10. For certain larger-scale commercial operations deemed to be MCPs, Section 9.3A of the Bylaw requires that a special permit be obtained; this requirement applies even if the use would otherwise be allowed of right in the relevant district. The purpose of this requirement is to protect surrounding properties from undesired or offensive effects of a proposed commercial operation (such as noise, odors, light, and traffic). Section 10.2 of the Bylaw defines a MCP as:

> any industrial or commercial use which has one or more of the following characteristics: (a) 15,000 square feet or more of gross floor area in any building or combination of buildings; (b) more than 100 required parking spaces; (c) generation of more than 250 vehicle trips per day, as determined by the ITE's Trip Generation Manual; (d) the use is allowed in the district in which it will be located.[11]

11. With respect to MCPs, Section 9.3A.4(2) of Bylaw states that "[n]o person shall operate or cause to be operated any source of sound in a manner that creates a sound level which exceeds 70 dBA or 10 dBA above ambient, whichever is lower, when measured at the property boundary of the receiving land use."[12] However, pursuant to Section 9.3A.6 of the Bylaw, "[t]he Planning Board may . . . waive any of these performance standards where such waiver is not inconsistent with the public health and safety, and where such waiver does not undermine the purposes of this section and the proposed development will serve the goals and objectives set forth in Section 9.3A.1."

12. Under Section 8.0 of the Bylaw, certain areas of the Town designated as WRPODs (including the area where Locus is situated) are subject to special restrictions related to protecting

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[11] As noted above, the parties have stipulated that requirement (d) of Section 10.2 is invalid.

[12] This 10 dBA above ambient standard (measured at property lines and nearby residences and/or other sensitive receptors, such as schools or hospitals) is echoed in MassDEP noise regulations. However, "[n]oise levels that exceed the criteria at the source's property line do not necessarily result in a violation or a condition of air pollution . . . ." Thus, "[a] new noise source that would be located in an area that is not likely to be developed for residential use . . . or in a commercial or industrial area with no sensitive receptors may not be required to mitigate its noise impact . . . ."

the Town's supply of drinking water. Of relevance to the Project is Section 8.1.10 of the Bylaw, which requires a special permit for any use involving storage of fuel oil in a WRPOD, which was a proposed part of the Project.

13. Finally, pursuant to Section 3.1.1 of the Bylaw, "[n]ot more than one principal use or structure shall be allowed on any lot, except as otherwise may be provided herein." However, Section 9.3.1 of the Bylaw provides that a special permit for a variance from this restriction may be granted if "the proposed use or structure(s) shall [sic] not cause substantial detriment to the neighborhood or the town, taking into account the characteristics of the site and of the proposal in relation to that site."[13]

The Permit Application Process

14. In April of 2009, Newport filed applications with the Board for a site plan review and MCP and WRPOD special permits for the Project.[14] Between May of 2009 and April of 2010, the Board held twenty-one public hearings with respect to the Project, during which period Newport supplemented their filings to address the Board's concerns and requests for information. On April 20, 2010, the Board voted 4-1 to deny all three applications, primarily because "the Board [lacked] jurisdiction to approve the Site Plan based on a finding that the [Project] is not light manufacturing as defined in the [Bylaw] and the application therefore has no standing."

15. In the Site Plan Review Decision, the Board determined that the Project did not

[13] Defendants argue that Section 3.1 of the Bylaw entails that a MCP special permit is required in order to operate multiple principal uses and/or structures on a single lot. On the way to this conclusion, Defendants appear to misconstrue Section 3.1.3 as creating a new use category for MCPs that is distinct from "primary uses". This construal is without support in any aspect of the Bylaw. Section 3.1.3 simply entails that a use that is characterizable as falling under multiple different use classifications is subject to the strictest permitting requirements applicable to any of the different classifications of which it is susceptible. Moreover, nowhere in the Bylaw's definition or discussion of MCPs is it stated (or even implied) that multiple primary uses on a single lot requires a MCP special permit. Rather, it would appear that all that is needed to conduct multiple primary uses is a simple variance. In this way the Board retains an inherent discretion to vary from its zoning ordinances.

[14] Around this time, Newport also applied for a plan approval from MassDEP, which was conditionally granted in September of 2009; a final modified conditional approval issued on April 7, 2011.

constitute light manufacturing because it would not be "'substantially noiseless and/or inoffensive' as is required for the use to be 'Light Manufacturing'".[15] Specifically, the Site Plan Review Decision stated that Plaintiffs' sound level evaluation report "did not take into account noise generated from the proposed truck traffic", "did not provide sound level data from the nearest abutting property boundaries as required by the MassDEP", did not include the impact of proposed "on-site heavy operating equipment", and improperly incorporated unfounded noise attenuation data.[16] The Site Plan Review Decision further stated that the Project would be in violation of the Prohibition Clause (a claim that has since been withdrawn by agreement of the parties), that the Project would result in an unacceptable impact on local traffic, and that the Project would constitute "Heavy Manufacturing". The Site Plan Review Decision made no reference to the Bylaw's prohibition of light manufacturing operations employing "not more than four employees" in IA zoning districts.

Noise Data

16. Plaintiffs and Defendants each submitted expert evidence pertaining to the projected noise impact that the Project would have.[17] According to the parties' experts, in order to determine

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[15] As discussed below, it is the determination of the court that the "substantially noiseless and inoffensive" requirement applies only to the power source of a proposed use. Neither party offered testimony specifically addressing the means by which the Project would be powered, nor as to the level of noise that any non-electrical motor power would generate. Both at trial and in their post-trial briefs, the parties focused not on determining whether the Project's power source would be "substantially noiseless and inoffensive", but rather whether the Project's operations generally could be described as such. Based upon the Project plans, it appears that the majority of the equipment sought to be installed may be powered substantially (if not entirely) by electrical means, including, specifically, the conveyer belts, the materials recycler, the motor control center, the HVAC system, the exhaust system, and the fuel pump systems. The only systems that appear to generate power through non-electrical means are the gas and oil burners used to heat materials, and, with the exception of the (electrical) support components of these burners, there is no indication that the burners themselves are motorized. With specific respect to the asphalt heating systems, according to the Project plans, these systems are "designed to overcome . . . high noise levels associated with open air burners."

[16] Plaintiffs' sound level evaluation was conducted by Cavanaugh Tocci Associates, Inc. ("CTA"), and it included sound measurements at various residential and commercial receptors outside of the Groton Parcel; CTA's report, which was submitted to the Board as part of Newport's application for approval of the Project, is dated May 14, 2009, and was supplemented by three additional reports. CTA also submitted their findings to Mass DEP in connection with their application for a non-major comprehensive plan approval, which was eventually approved.

[17] Because of the technical nature of noise impact assessment, a brief precis on the basic concepts underlying same is appropriate. According to the parties' expert witnesses, sound can be evaluated in terms of its power (i.e., a quantification of the amount of sonic energy produced by a noise source) or its pressure (i.e., the amount of sound perceived by a

the sound impact that a potential noise source will have, ambient sound level (i.e., a measurement of background sound levels without the potential noise source) is compared to the total future sound level (i.e., the projected noise level expected to be generated by the source plus the ambient sound level) at one or more measurement locations (referred to as "receptors").[18] Projections as to the expected future noise a proposed use would make are typically made by reference to actual measurements of similar uses in other locations. The experts testified that such an evaluation must also take into consideration unique features of the property in question that may result in sound attenuation (i.e., reduction), which can be caused by various sources, including air molecules (which results in the reduction of distant sounds, especially high frequency sounds), foliage, and any solid barriers between the noise source and the measurement site.

17. Because the level of noise fluctuates over time, the experts testified that sound measurements in any noise impact study must be taken for a sustained period of time. After so doing,

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listener). Since sound power is an "abstract" concept that is "impossible to measure" and does not pertain to sound perception, sound pressure is used to evaluate sound for noise analyses.

The unit by which sound pressure is most commonly evaluated is decibels A-weighted (dBA), the technical definition of which is "[t]he total sound level in decibels of all sound as measured with a sound level meter with a reference pressure of 20 micropascals using the 'A' weighted network scale at slow response." A PLANNER'S DICTIONARY (Michael Davidson & Fay Dolnick, Am. Planning Ass'n eds., 2004), p. 282 (*found at* Aff't of Terry S. Szold, Ex. B). Here, "A-weighting" refers to an emphasis of middle frequency sounds (and deemphasis of lower and higher frequency sounds), which is intended to represent how the human ear perceives sound at various frequencies.

The parties' expert witnesses agreed that increases in sound of 3 dBA are barely perceptible, increases of 5 dBA are noticeable, and increases of 10 dBA are perceived as roughly double in volume. See MS&G Lakeville Corp. v. Town of Lakeville, 2007 WL 1576141 (Mass. Land Ct. June 1, 2007).

The parties' expert witnesses also agreed that the human ear is sensitive to a broad band of frequencies of sound ranging from low frequency sounds (i.e., bass sounds) to middle frequency sounds (e.g., normal speech) to high frequency sounds (i.e., high pitch sounds, such as birds chirping). Defendants' expert witness plausibly testified that sounds at different frequencies have a different perceived character effect on the listener, so a noise source that does not substantially affect the total sound level could nonetheless be perceived as noticeably different from the ambient sound level if the noise was of a different sound frequency. However, Plaintiffs' expert witness testified that such a difference occurs only if the added sound is "significantly tonal", such as a siren or alarm.

[18] Plaintiffs' expert witness described the ambient sound level as "the relatively steady state sound level that exists in an environment . . . [or] the residual sound level that is near the minimum sound level that occurs during a particular time interval." The projected sound level of a proposed use is estimated using industry standards for sound generation from similar uses and applying sound attenuation based on the location of the measurement relative to the location of the project. Calculating the total sound level is not a matter of simply adding the dBA levels of the ambient sound and the estimated sound of the proposed use, but rather involves a "logarithmic addition" of the two sounds; as such, the total sound level may not be higher than the sound level of whichever sound was more dominant.

the level of the sound is deemed to be the level it was at (or above) 90% of the time, which is referred to as the "L90" standard. Notably, this court has previously found the L90 standard to be an acceptable standard for noise measurement, and it is also employed in MassDEP regulations. See MS&G Lakeville Corp., 2007 WL 1576141 at 5, n. 24. Plaintiffs' and Defendants' respective sound analysis experts each employed this method in their analyses.

18. The noise impact study conducted by Plaintiffs' sound experts, CTA, measured sound levels at seven residential receptors and one commercial receptor outside of the Groton Parcel.[19] CTA's findings were as follows:

TABLE 1: CTA NOISE IMPACT ESTIMATES AT NEARBY RECEPTORS

Receptor Location	Ambient Sound Level	Total Future Sound Level	Increase
263 Groton Road	43 dBA	45 dBA	+2 dBA
Scotty Hollow Road "E" Building Cluster	52 dBA	53 dBA	+1 dBA
Morrison Lane	45 dBA	46 dBA	+1 dBA
Sweet Wood Circle	45 dBA	47 dBA	+2 dBA
11 Russell's Way	43 dBA	45 dBA	+2 dBA
27 Russell's Way	43 dBA	44 dBA	+1 dBA
Danley Drive	43 dBA	45 dBA	+2 dBA
10 Commerce Way	55 dBA	62 dBA	+7 dBA

This data was then used by CTA to estimate sound levels at the north, south, east and west perimeter

[19] More specifically, the May 2009 CTA Report states that the following procedure was employed: "continuous sound monitoring of A-weighted sound levels (dBA) over a week-long duration and short term sampling (ten-minute time intervals) of sound at different frequencies, at multiple locations at/near residential properties around the project site." Further, "[o]ur acoustical analysis of the asphalt plan is based on reference A-weighted (dBA) sound levels . . . provided by the principal asphalt plan equipment and systems manufacturer, together with our own database of octave band asphalt plan sound levels from previous studies . . . . The reference sound data for the proposed asphalt plant is based on sound measurements conducted at an existing asphalt plant that is of the same design equipment make-up, and production capacity as the asphalt plant proposed for the Westford site . . . ."

lines of the Groton Parcel (the "North Boundary Line", "South Boundary Line", "East Boundary Line" and "West Boundary Line"):

TABLE 2: CTA NOISE IMPACT ESTIMATES AT THE BOUNDARY LINES[20]

Receptor Location	Ambient Sound Level	Total Future Sound Level	Increase
Northern Boundary Line	45 dBA	45 dBA	0 dBA
Southern Boundary Line	43 dBA	46 dBA	+3 dBA
Eastern Boundary Line	43 dBA	60-65 dBA	+7-12 dBA
Western Boundary Line	43 dBA	65-70 dBA	+12-17 dBA

Plaintiffs' expert witness classified sound levels of 45–46 dBA as "inaudible, indistinguishable from the existing ambient environment", sound levels of 60-65 dBA as the "low end of conversational voice level", and sound levels of 65-70 dBA as "roughly conversational voice level".

19. Defendants also commissioned a noise impact study, which was conducted by Acentech Inc. ("Acentech"), a sound engineering consultancy firm.[21] Acentech's study included measurement of ambient sound levels at four points along the boundaries of the Groton Parcel, with total future sound levels "based on the sound power levels provided by [CTA's study] and . . . the same factors that [CTA] had used." The results of Acentech's study were as follows:

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[20] CTA's estimates for the Eastern and Western Boundary Lines assumed that the noise attenuation barriers they recommended to be installed were in place. Specifically, "'[T]ransportation-type" noise barrier walls can be strategically located and constructed at/near truck unloading areas, front end loader operations areas, at-grade compressor and fan locations, etc. The potential requirements for additional noise control measures could be evaluated following plant construction and . . . [further measures] could be installed without major reconstruction/alteration/shutdown of the plant." These noise attenuation measures were not incorporated into the plans for the Project.

[21] Defendants conducted their own noise impact study because they objected to the methodology of CTA's sound impact study on several bases. First, Defendants claim that CTA's study did not adequately take into account increases in specific frequencies within the overall sound environment. Next, Defendants objected to CTA's assumption of sound attenuation barriers that were not included in the plans for the Project that were submitted to the Board. Defendants' expert witness further noted that CTA's study assumed the absolute upper limit of noise attenuation that a barrier could realistically provide without enclosing the proposed noise source. Finally, Defendants objected to the fact that Plaintiffs' study did not include actual measurements from places along the Groton Parcel's boundaries, but rather made estimates of sound levels on the boundaries based on measurements taken elsewhere.

TABLE 3: ACENTECH NOISE IMPACT MEASUREMENTS AT NEARBY RECEPTORS[22]

Receptor Location	Ambient Sound Level	Total Future Sound Level	Increase
263 Groton Road	49 dBA	50 dBA	+1 dBA
Scotty Hollow Road "E" Building Cluster	56 dBA	57 dBA	+1 dBA
19 Morrison Lane	41 dBA	42 dBA	+1 dBA
31 Russell's Way	36 dBA	40 dBA	+4 dBA

Acentech used the data they and CTA collected to estimate the future noise impact of the Project at the boundaries of the Groton Parcel. Their analysis at the West Boundary Line included projections both with and without attenuation measures taken. The following were Acentech's findings:

TABLE 4: ACENTECH NOISE IMPACT ESTIMATES AT THE BOUNDARY LINES[23]

Receptor Location	Ambient Sound Level[24]	Total Future Sound Level	Increase
North Boundary Line	45 dBA	48 dBA	+3 dBA
South Boundary Line	43 dBA	48 dBA	+5 dBA
East Boundary Line	43 dBA	51 dBA	+9 dBA
West Boundary Line	43 dBA	56 dBA (with barriers); 75 dBA (without barriers)	+13 dBA (with barriers); +32 dBA (without barriers)

[22] Acentech found lower ambient sound levels than were estimated by CTA at the second two locations, but higher ambient sound levels for the first two. The total sound impacts on these locations, as found by Acentech, differed from those estimated by CTA only by 2 dBA or less -- a negligible amount that both parties' experts would agree is below the threshold even of a barely perceivable sound increase.

[23] The Acentech study also included projections of the sound impact on the nearby office building at 10 Commerce Way (ambient sound level of 55 dBA and total future sound level of 62 dBA) and an internal location on the Groton Parcel where Groton had proposed to subdivide the Groton Parcel (ambient sound level of 43 dBA and total future sound level of 59 dBA). In addition, Acentech provided a frequency band analysis of the projected sound, which showed a greater increase at lower frequencies (63, 125, and 250 hertz).

[24] Despite their objections as to the methodology of CTA's study, Acentech's study itself does not appear to have included measurements of sound at the boundary lines of the Groton Parcel. In addition, Acentech's report ultimately utilized CTA's estimated ambient sound levels. It is unclear why neither CTA nor Acentech conducted measurements directly at the boundary lines of Groton Parcel rather than relying on estimates drawn from other receptors.

Traffic Data

20. As part of the materials submitted in support of the Project, Newport submitted the results of a traffic study conducted by Greenman-Pedersen, Inc. ("GPI"), which analyzed the expected impact the Project would have on local traffic. According to GPI's traffic analysis, the Project would result in approximately 100 vehicles accessing Locus every day, resulting in approximately 199-203 trips (defined as every coming or going from Locus via public roads) per diem. This total is reached as follows:

TABLE 5: PLAINTIFFS' TRAFFIC IMPACT PROJECTIONS

Reason for Access	Number of Vehicles/Trips
Importing aggregate to Locus	18 (36 trips)
Importing RAP to Locus	13 (26 trips)
Importing fuel and bitumen to Locus	3 (6 trips)
Employees, visitors, and deliveries	3-5 (6-10 trips)
Exporting asphalt from Locus	63 (~125 trips)

These projections are based on a number of stated assumptions, including:

(a) that aggregate would comprise 75% of the asphalt produced, that 50% of this aggregate would come from the Fletcher Quarry via non-public quarry roads (which were not considered in calculating trips), and that all aggregate from offsite locations would be delivered in 32-ton capacity vehicles operating at 100% capacity;[25]

(b) that RAP would comprise 25% of the asphalt produced, which would be delivered in 30-ton capacity vehicles

[25] Defendants argue that the fact that Newport may import some of the aggregate for the Project from the Fletcher's Quarry is speculative and irrelevant, since Plaintiff is under no obligation to import aggregate from Fletcher's Quarry. Even if they were under such an obligation, Defendants continue, the calculation of trips (for purposes of determining whether the requirement to apply for a MCP special permit) must include all trips to and from Locus -- including those from the Fletcher's Quarry on non-public roads.

operating at 100% capacity;[26]

(c) that the maximum output of the Project would be 1,500 tons of asphalt per diem, which would be delivered in 24-ton capacity vehicles operating at 100% capacity;[27] and,

(d) Plaintiff's stated willingness to stipulate that the Project will not be permitted to generate more than 250 trips per diem.[28]

21. Defendants also submitted expert evidence as to the potential traffic impact of the Project. Defendants' expert testified that an accurate traffic impact study must take into consideration such variables as employee trips, visitors, deliveries, weather, economics, and seasonality. Defendants' traffic expert also testified that the size and capacity of import/export trucks, as well as the reasonableness of expecting such trucks to carry loads at full capacity, are additional relevant factors in assessing the potential traffic impact of a proposed use.

22. Defendants' traffic expert testified that if Plaintiffs' above-noted assumptions as to the sourcing of aggregate, overall production, and importation of RAP were removed, the total average number of trips could range anywhere from 260 to 444 trips per diem, and that peak traffic could range from around 400 trips per diem and up.

* * *

[26] Defendants argue that Plaintiffs are not obligated to limit their RAP usage to 25% of finished product, and that the relevant measurement of potential RAP traffic should be based upon the MassDEP-permitted RAP level of up to 40%.

[27] Defendants claim that Newport is under no obligation to limit the maximum output of the Project to 1,500 tons per diem -- a figure, they argue, that is based only on Plaintiffs' stated willingness to stipulate to such a limit. Rather, they argue, the relevant potential output of the Project is, at minimum, the average maximum daily capacity of 2,300-2,500 permitted by MassDEP, or, at maximum, the theoretical maximum output of the Project of 5,000 tons per diem.

[28] Defendants dismiss Plaintiffs' willingness to so stipulate as "self-serving", which suggests that Defendants -- for reasons not brought to the court's attention -- are themselves not willing to stipulate to this as a condition of any approval of the Project. Defs. Post-Trial Br., p. 68. Although, as discussed below, Plaintiffs' willingness to stipulate to a maximum number of vehicle trips is not relevant for purposes of determining whether an MCP permit is required, it is quite obviously relevant to the issue of whether such a permit should be approved upon remand. As Plaintiffs point out in their post-trial brief, a stipulated maximum number of trips can easily be made a condition of an MCP permit. Thus, while the issue of whether or not to grant an MCP permit subject to such a condition is not presently before the court, it is the opinion of this court that it would be unreasonable for the Board, upon remand of this matter, to ignore Plaintiffs' stated willingness to stipulate as to the maximum number of vehicle trips associated with the Project in determining whether to approve an MCP permit for the Project.

Defendants' Motion to Strike

Before resolving the merits of this case, the court must rule on Defendants' February 21, 2014 motion to strike a portion of Roy's affidavit. In their opposition to the motion, Plaintiffs concede that the portions of Roy's affidavit concerning the concrete plant located at 520 Groton Road are inadmissible pursuant to this Court's order dated October 24, 2013. The court concurs. Thus, Defendants' motion is allowed to the extent that paragraphs 2, 6, 14, 18, and 20, and exhibits 7, 8, 10, 11, 12, 13, 21, 22, 23, 24, 25, 26, and 27 of Roy's affidavit (plus page 5, ¶ 2; page 6, ¶ 3; and page 7, ¶ 1 of Roy's interrogatory answer) are stricken. In addition, paragraphs 5 and 16 (and Exhibit 14) of Roy's affidavit (which deal with his opinion as to whether extraction of rock could occur at Locus) is irrelevant, since Plaintiffs' application to the Board does not propose any such operation. This inadmissible testimony is therefore stricken. Finally, exhibits 6, 7, 8, 20, 31, and 42 to Roy's affidavit constitute inadmissible hearsay, and are also stricken.

Standard of Review on Appeal

In an appeal filed under G.L. c. 40A, § 17, the court's review of the facts at issue and determinations of the Board is de novo; as such, the findings and determination of the Board are accorded no evidentiary value. E.g., Josephs v. Bd. of App. of Brookline, 362 Mass. 290, 295 (1972). Nonetheless, the court's review is "circumscribed: the decision of the [Board] cannot be disturbed unless it is based on a legally untenable ground, or is unreasonable, whimsical, capricious or arbitrary." Roberts v. Sw. Bell Mobile Sys., Inc., 429 Mass. 478, 486 (1999) (quotations omitted); see also Britton v. Zoning Bd. of App. Of Gloucester, 59 Mass. App. Ct. 68, 73 (Mass. App. Ct. 2003) ("a highly deferential bow [is due] to local control over community planning").

In sum, the court's task is "to ascertain whether the reasons given by the [Board to disallow the Project] had a substantial basis in fact, or were . . . mere pretexts for arbitrary action or veils for

reasons not related to the purposes of the zoning law." Vazza Props., Inc. v. City Council of Woburn, 1 Mass. App. Ct. 308, 312 (Mass. App. Ct. 1973); see also Britton, 59 Mass. App. Ct. at 74-75 (the local board's decision must be supported by a rational view of the facts).

Use of Locus

In determining whether the Board's denials of Plaintiff's site plan review, MCP, and WRPOD applications were "arbitrary and capricious", and in order to issue the judicial determinations on the questions of statutory construction raised by Plaintiffs, the court must consider three primary issues. First, the court must determine whether the Project constitutes a "quarrying [and] mining" operation. As discussed below, the court finds that it does not. Next, the court must determine whether the Project constitutes a "light manufacturing" operation. This inquiry requires an assessment of the parties' expert evidence as to the expected noise impact of the Project. And, as discussed below, the court finds that the Project, in its present form, does not constitute light manufacturing, but that if revised plans were submitted to include noise attenuation barriers, it would likely so qualify.[29] Finally, the court must determine whether the requirement to apply for a MCP special permit (or any other special permit) applies to the Project. As discussed below, the court finds that this requirement does apply.

Standard rules of statutory construction dictate that plain, unambiguous language must be interpreted by the courts "in accordance with the usual and natural meaning of the words." Gillette Co. v. Comm'r of Rev., 425 Mass 670, 674 (1997) (quotations omitted); see also Comm'w v. DeBella, 442 Mass 683, 687 (2004) ("When the ordinary meaning of words yield a workable and logical result, there is no need to resort to extrinsic aids' in interpreting the statute." (quotations

[29] As discussed below, the plans for the Project must also be revised so as to comply with the requirement that it will employ at least five employees. Alternatively, the site plan review application could be amended to include a request for a variance from this requirement of the Bylaw.

omitted)). Zoning bylaws in Massachusetts "must be reasonably construed", and "should not be so interpreted as to cause absurd or unreasonable results when the language is susceptible of a sensible meaning." Green v. Bd. of App. of Norwood, 358 Mass 253, 258 (1970). In so doing, the courts also give "some measure of deference" to a planning board's interpretation of its own bylaws. E.g., APT Asset Mgmt. v. Bd. of App. of Melrose, 50 Mass. App. Ct. 133, 138 (Mass. App. Ct. 2000).

A. Use as of right as "quarrying [and] mining"

Counts IV and V in Plaintiffs' Second Amended Complaint seek a judicial determination and declaratory judgment that the Project constitutes a quarrying and mining operation and would therefore be allowed as of right at Locus. Plaintiffs argue that the Project constitutes quarrying and mining because at least half of the aggregate is intended to be extracted from the abutting Fletcher Quarry, and because the operation of the proposed asphalt plant will constitute the "processing and finishing" of rock products. However, Plaintiffs concede that, under the current Project design, no rock would be extracted from Locus itself.

Section 10.2 of the Bylaw, which defines "quarrying [and] mining", requires both "extraction of rock" and the "processing and finishing" thereof; the conjunctive nature of this definition entails that both of these activities must occur for a use to fall under the definition. It is undeniable that the Project would entail "processing and finishing" of rock products; however, the "extraction" requirement is not met. Plaintiffs' suggested construal of this term would permit processing and finishing of rock products extracted from any source under the this definition, which would effectively read the words "extraction of rock" out of the Bylaw entirely.

Plaintiffs' argument that they meet the "extraction" requirement because their current plan is to have 50% of the aggregate extracted from the Fletcher Quarry is unavailing. First, the extraction of aggregate by a third-party from a different parcel (irrespective of how near it may be to Locus)

owned by a different entity is entirely irrelevant to the determination of whether the Project itself would include extraction of aggregate. Moreover, because Newport is under no obligation to purchase their aggregate from the Fletcher Quarry, there is nothing preventing them from changing the source of the materials being processed. As a result, I find that the Project does not constitute "quarrying [and] mining" under Section 10.2 of the Bylaw.

B. Use as of right as "light manufacturing"

Counts II and III in Plaintiffs' Second Amended Complaint seek a judicial determination and declaratory judgment that the Project qualifies as an of right use as a light manufacturing operation in the IA zoning district in which Locus is located. Counts VIII and IX further request a judicial determination and declaratory judgement that the meaning of the term "light manufacturing" "must be interpreted reasonably and in such a way that an applicant can understand its meaning" by taking into consideration, among other things, "recognized industry or regulatory standards".[30]

Since the parties have agreed that the Project would not violate the Prohibition Clause of Section 10.2, the only issues here are (a) whether the Project would employ more than four employees, and (b) whether the Project would constitute "fabrication, assembly, processing or packaging operations employing only electric or other substantially noiseless and inoffensive motor power, utilizing hand labor or quiet machinery and processes . . . ."

It is immediately apparent that, even if the Project were found to constitute "light manufacturing", as it is presently proposed, it would nonetheless not be allowed of right at Locus because, pursuant to the Bylaw, light manufacturing employing four or fewer employees is not permitted of right in IA zoning districts. As testified to by the principal of Newport, the Project would employ only three employees. Thus, as presently conceived, the Project is not an of right

[30] Count 8 actually refers to "the Prohibition Clause", not to the definition of "light manufacturing"; this appears to be a mere scrivener's error, which the court will disregard.

use.[31]

Because the Project would not be allowed as of right even if found to constitute light manufacturing, the court need not proceed any further on the question of whether the Project would be permitted as of right as a light manufacturing operation. Nonetheless, it will be instructive to the parties to opine on whether that definition is applicable to the Project.

The Bylaw's definition of "light manufacturing" is somewhat vague and contains several fact-specific qualifiers (i.e., "substantially", "noiseless", "inoffensive", and "quiet") that are not defined or elaborated upon in the Bylaw. When the ordinary meanings of the terms of the Bylaw are defined, we can arrive at a perfectly workable and logical result. Thus, it does not appear that it is necessary to look beyond the text of Section 10.2 of the Bylaw to determine how the term "light manufacturing" should be applied. As such, while the Bylaw obviously must be interpreted "reasonably and in such a way that [Plaintiffs] can understand its meaning," there is no reason to turn to "recognized industry or regulatory standards" for insight into such meaning.

When we parse the Bylaw's definition of "light manufacturing", we find three distinct

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[31] Plaintiffs, in their reply to Defendants' post-trial brief, argue that Defendants should be barred from addressing this issue because it was not discussed in the parties' joint pre-trial memorandum. This argument is unavailing. Plaintiffs had ample notice that this would be an issue in this case, given that it was raised in the pleadings, in Land Court Decision 1, and at trial.

Plaintiffs further contend that the requirement that a project employ not fewer than five employees to qualify in the IA district is arbitrary and unreasonable. They may very well be correct. Indeed, this court can think of no reason why a zoning ordinance would permit large-scale manufacturing operations but forbid small-scale manufacturing operations. Specifically delineating a subclass of light manufacturing employing four or fewer employees would seem to make sense only if the intent were to permit the opposite arrangement: allowing only small scale manufacturing in, for example, areas at close proximity to residential areas. Moreover, the phrasing of this requirement in the negative as "not more than four employees" seems to support this rationale for differentiating light manufacturing operations based on their size.

The nonsensicality of this application of the Bylaw notwithstanding, the law is on the books, so this court must apply it. If Plaintiffs believe this aspect of the Bylaw to be arbitrary and unreasonable, their recourse is to challenge it under G.L. c. 240 §14A or G.L. c. 231A. While Plaintiffs, in their Second Amended Complaint, sought a judicial determination and a declaratory judgment as to the interpretation and application of the term "light manufacturing", the pleadings do not request the same relief with respect to the reasonableness of the Bylaw's prohibition of light manufacturing operations operating with fewer than five employees in IA zoning districts. This issue was not briefed by the parties or addressed at trial. In fact, Plaintiffs first raised the issue in their post-trial brief.

As an alternative to filing a judicial challenge to this aspect of the Bylaw, Newport can easily remedy this defect on remand to the Board by simply revising the site plans for the Project so that five or more employees will be employed.

elements that the Project must contain in order to be reasonably classified as such. Namely, it must (a) constitute "fabrication, assembly, processing or packaging operations", (b) it must "employ[ ] only electric or other substantially noiseless and inoffensive motor power", and (c) it must utiliz[e] hand labor or quiet machinery and processes".

1. "[F]abrication, assembly, processing or packaging operations"

Although arguments could be made that the Project will constitute fabrication or assembly, the most obvious route to a determination that the Project satisfies this requirement is through "processing", which, as noted above, Defendants' expert, Terry Szold, seemed to concede was applicable to the Project. I find that the Project will constitute "processing", and therefore meets the first requirement of the Bylaw's definition of "light manufacturing".

2. "[E]lectric or other substantially noiseless and inoffensive motor power"

On its face, the scope of this provision is very narrow: it pertains only to the means by which a proposed use is powered -- not to the proposed use considered as a whole. Thus, "substantially noiseless and inoffensive" are requirements only of the Project's power source. Further, the use of the word "other" here implies that electric power qualifies as "substantially noiseless and inoffensive". These descriptors would therefore only apply to some form of non-electrical "motor power" -- such as a gasoline-powered generator.

As noted above, neither party specifically addressed the issue of the Project's power source and whether it could be described as "substantially noiseless and inoffensive". Rather, they focused instead on whether the Project's operations generally could be described as such. As such, the court was required to consider this issue without the assistance of relevant expert testimony or briefing.

Based upon the court's cursory review of the Project plans, it appears that the majority of the equipment sought to be installed will be powered substantially (if not entirely) by electrical means.

At first blush, then, it would appear likely that this requirement will be satisfied by the Project. However, because Plaintiffs did not address this issue through the testimony of their expert witnesses and did not provide briefing of this issue, the court is presently unable to conclude that Plaintiffs have satisfied their burden of demonstrating that the Project would be powered solely by electric power, or that any non-electrical motor power would be substantially noiseless and inoffensive.[32]

3. "[H]and labor or quiet machinery and processes"

The record is clear that the Project will employ no hand labor (other than the prospective employees' operation of the equipment proposed to be constructed). Thus, we must determine whether the "machinery and processes" to be operated as part of the Project would "[m]ak[e] or [be] characterized by little or no" "sound that is loud, unpleasant, unexpected, or undesired".[33] Notably, this does not mean that the Project must generate little or no sound, full stop; rather, such sound must not be so harmful as to constitute noise.

The Bylaw is entirely silent as to the definition of "quiet" and how the concept of "noise" is to be assessed in determining whether a use would constitute light manufacturing. Thus, the court

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[32] On remand to the Board, Plaintiffs should address this issue, and the Board's determination of whether the Project satisfies this requirement shall be governed by the court's interpretation of the phrase "[E]lectric or other substantially noiseless and inoffensive motor power". The court further reminds Defendants that, to the extent that the Project will include non-electrical motor power sources, the requirement that such sources be "substantially noiseless and inoffensive" does not require that they be completely silent. So long as the sound generated by any such power sources (when considered in the context of the Project, Locus, and the surrounding properties) would not rise to the level of "noise" (as discussed below), it would be reasonable. Moreover, if the sound generated by the Project as a whole would not rise to the level of "noise", the mere fact that any non-electric motor power sources could be deemed not to be "substantially noiseless and inoffensive" would not be a reasonable basis upon which to deny approval of the Project.

[33] As noted above, both parties' analyses of the noise impact of the Project were couched not in terms of whether the Project would be "quiet", but rather whether it would be "substantially noiseless and inoffensive" -- a requirement that the court has determined is applicable only to the power source of a prospective use. The fact that the Bylaw employs two different descriptors creates two different standards by which two different aspects of a proposed use are to be measured. I conclude that the "quiet" standard is less stringent than the "substantially noiseless and inoffensive" standard. The "substantially noiseless and inoffensive" standard, on its face, would seem to be an almost impossible standard to meet if applied to a proposed use considered as a whole, and would certainly run afoul of the requirement that bylaws be interpreted and applied reasonably. See Green, 358 Mass. at 258. Thus, to the extent that the Board's operating procedure is to apply the "substantially noiseless and inoffensive" requirement to proposed uses considered as a whole, they misapply the Bylaw.

interprets this term in the general context of the provisions of the Bylaw, and with reference to relevant standards and practices of the MassDEP. The most relevant provision of the Bylaw is Section 9.3A.4(2)(A) of the Bylaw (which pertains specifically to MCPs, and not to "light manufacturing" uses), which prohibits uses that create a sound level exceeding the lower of 70 dBA or 10 dBA above the ambient sound level, measured at the property boundaries of the receiving land use. This "10 dBA above ambient" standard is echoed by the MassDEP's noise policy, as is the recommended location of assessment.

I find that this standard set forth in Section 9.3A.4(2)(A) of the Bylaw is a reasonable one for determining whether, for purposes of satisfying the definition of "light manufacturing", the Project is expected to be quiet.[34] I further note that Section 9.3A.6 of the Bylaw permits these standards to be waived "where such waiver is not inconsistent with the public health and safety, and where such waiver does not undermine the purposes of this section and the proposed development will serve the goals and objectives set forth in Section 9.3A.1." MassDEP noise regulations likewise provide for such a waiver -- which is likely the reason why MassDEP approved the Project.

In order to determine whether the Project will be "quiet", I must first determine where prospective noise should be measured -- directly at the source of the sound (Locus), at the Boundary Lines, and/or at the location of the nearest residential receptor(s). As was the case with the definition of "quiet" itself, the Bylaw is silent on this question, so I must again look elsewhere for guidance. Section 9.3A.4(2)(A) of the Bylaw (which, as noted, pertains specifically to MCPs -- not to light manufacturing uses) provides that sound should be "measured at the property boundary of the receiving land use." This approach is supported by MassDEP's policy with respect to the evaluation

[34] As a corollary, because Plaintiffs' expert witness plausibly testified that the Project is not expected to produce pure tones (such as sirens or alarms), I find that the overall measurement of sound pressure (measured in dBA) is an adequate means by which to assess the potential noise impact of the Project, and that analysis of individual frequencies of sound (as advocated by Defendants) is neither necessary nor relevant.

of noise, which calls for measurements to be taken "both at the source's property line and at the nearest residence or other sensitive receptor (e.g., schools, hospitals) . . . ."

Succinctly stated, the purpose of the Bylaw, as stated in Section 1.3 thereof, is to strike an optimal balance between promoting the productive use of properties and protecting the surrounding environment from any possible ill effects that such uses may engender. With respect to noise, the Bylaw seeks to "reduce noise pollution in order to preserve and enhance the natural and aesthetic qualities of the Town; preserve property values; and preserve neighborhood character."

In view of these provisions, it is clear that the Bylaw is not meant to prevent sounds that, although possibly harmful, are nonetheless deemed acceptable by the owners of a particular property, but rather to prevent such sounds from adversely affecting adjacent landowners. Therefore, the noise impact within the Groton Parcel (including at Locus itself) will not be considered.[35] Rather, the closest locations to Locus where a relevant adverse impact may be caused by the Project would be at the perimeters of the Groton Parcel, which the court deems to be the "property boundary of the receiving land use".[36] In view of the purposes of the Bylaw and relevant MassDEP practices, the court further deems it relevant to consider the impacts of noise on the nearby residential properties.

Because Defendants' noise impact study worked off of the ambient sound levels estimated in Plaintiffs' sound analysis, the court finds that there is no dispute as to the ambient sound levels at the boundaries of the Groton Parcel. See Table 2 & Table 4, *supra*. As such, I find the

[35] In view of the facts that (a) Groton, the owner of Locus and lessor of the Newport Parcel, has aligned its interests with those of Newport, and (b) there is no known objection of record from any other tenant or occupant at Locus, the court deems it unnecessary to consider the noise impact at the boundaries of the Newport Parcel, as the only difference doing so would make would be to measure the noise impact upon other areas of the Groton Parcel itself. With respect to the noise impact on Locus itself, the court notes, as an aside, that there are federal and state mechanisms in place to ensure that such noise is not harmful to employees.

[36] Defendants cite Groton's prospective plans to subdivide a portion of the Groton Parcel and suggest that the boundary of this subdivision should be treated as a relevant receptor. This argument is unduly speculative, as it posits an imaginary future abutter, and imputes an objection to noise created by the Project. The record indicates that Groton currently owns the entirety of the Groton Parcel, and therefore the hypothetical sub-parcel is not a separate, adjacent property. Defendants' sound analysis at the boundary of the subdivided area is therefore not relevant, and will not be considered.

determination that the ambient sound levels would be 43 dBA at the South, East, and West Boundary Lines, and 45 dBA at the North Boundary Line to be accurate.[37]

Because the Project, as proposed, does not include any barrier attenuation, the court finds that CTA's assumptions with respect to barrier attenuation are unjustified. See Table 1 & Table 2, *supra*. Thus, the court finds that the relevant measurements of potential noise impacts of the Project are those figures that do not include assumptions with respect to hypothetical noise barriers. See Table 4, *supra*. As such, the court finds Defendants' expert evidence as to total future sound levels to be credible and relevant, and finds Plaintiffs' evidence as to total future sound levels to be unreliable, since it takes into account unjustified assumptions with respect to barrier attenuation.

In view of the foregoing findings, the court makes the following factual determinations with respect to the total future sound levels at the Boundary Lines:

TABLE 6: COURT'S FINDINGS ON THE EXPECTED NOISE IMPACT OF THE PROJECT[38]

Receptor Location	Ambient Sound Level	Total Future Sound Level	Increase
North Boundary Line	45 dBA	48 dBA	+3 dBA
South Boundary Line	43 dBA	48 dBA	+5 dBA
East Boundary Line	43 dBA	51 dBA	+9 dBA
West Boundary Line	43 dBA	75 dBA	+32 dBA

With respect to nearby residential receptors -- which are located farther afield than the Boundary Lines, and should therefore be expected to experience a lessened noise impact due to distance attenuation -- the court accepts the findings of Acentech's study, and determines that the

[37] The court notes, again, that these figures represent estimates, not direct measurements, which both parties' noise impact surveys employed.

[38] Having concluded that the relevant receptor locations are the North, South, East, and West Boundaries of the Groton Parcel, as well as nearby residential receptors, the court declines to make any rulings as to the sound impact on any other receptor location, including any location within the boundaries of the Groton Parcel.

nearest residential receptor to the west would experience an increase of 4 dBA (an increase slightly greater than "barely perceivable"), while the residential receptors to the north, south, and east would experience only negligible, unperceivable increases of 1 dBA. See Table 2.

Measured against the standards in place pursuant to Section 9.3A.4(2)(A) of the Bylaw and MassDEP noise regulations, we see that one of the relevant receptors (i.e., the West Boundary Line) is expected to experience an increase in total sound pressure of greater than 10 dBA above ambient to above 70 dBA. Barring a variance from the Board, therefore, the Project, as presently conceived (without noise attenuation barriers), would not constitute "quiet machinery and processes" for purposes of determining whether it qualifies as light manufacturing.[39] Accordingly, I find that, as presently conceived, the Project is not allowed as of right at Locus.[40] Based upon the foregoing, I further find that the Board's denial of Plaintiffs' site plan review (and MCP and WRPOD special permit applications) was not "arbitrary and capricious and legally untenable".

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[39] As discussed above, both the Bylaw and MassDEP noise regulations permit variances from usual noise standards in appropriate cases. Here, the only relevant receptor where the sound level would rise to the level of "noise" is the Western Boundary, which abuts the Fletcher Quarry. To the best of the court's knowledge, the operator of the Fletcher Quarry does not object to the Project. Given the industrial use of the Fletcher Quarry, it seems highly unlikely that the operator would even have the basis for an actionable objection. Moreover, the surrounding area is substantially industrial in nature, containing multiple concrete plants, the Fletcher Quarry, and other industrial and commercial uses -- all of which are served by several already-busy state highways. There is no risk of this arrangement being disturbed, as covenants running with surrounding properties (which used to be part of the Fletcher Quarry parcel) restrict residential uses. In sum, it is difficult to imagine a more suitable location for the construction of an asphalt plant than where Plaintiffs propose to build it, nor a more economically optimal use of Locus than the processing of the products of the next-door quarry.

Nonetheless, it is not the province of this court to substitute its own judgment for that of the Board. Since the Project (without noise attenuation barriers) could not fairly be characterized as "quiet", it would require a variance from the Board -- for which Plaintiffs have not applied. Under such circumstances, although the Board's actions may not be the most reasonable course, the court cannot find that no "rational view of the facts" supports the Board's decision. Britton, 59 Mass. App. Ct. at 75. This would not be the case if Plaintiffs' proposals had included noise attenuation barriers.

[40] Based upon the court's findings above as to the meaning of "quiet" for purposes of Section 10.2 of the Bylaw, on remand to the Board, if Plaintiffs submits revised plans for the Project that include (a) a commitment to employ five or more employees and (b) plausible means of noise attenuation such that the noise impact on the West Boundary Line would be 69 dBA or less, it is the opinion of this court that the Project would be allowed as of right at Locus, subject to the requirements (discussed below) as to obtaining MCP and WRPOD special permits, as well as a special permit to operate multiple principle uses at the Groton Parcel (which, the court expects, given the multiple uses already being conducted at the Groton Parcel, would be routinely granted). As discussed above, such a renewed application should also address the issue of whether the Project will include any non-electrical motorized power sources, and whether any such source would be "substantially noiseless and inoffensive".

C. Special permitting requirements

Because the court has found that the Project does not -- as presently conceived -- constitute light manufacturing that would be allowed as of right at Locus, it follows that the Board's denials of Newport's applications for MCP and WRPOD special permits (and the issue of whether Newport was required to file a MCP special permit application at all) are moot.[41] Nonetheless, since, as noted above, it appears that the Project would constitute light manufacturing if it were resubmitted with certain changes included, it would be instructive to opine on whether such application should also be accompanied by an application for a MCP special permit.

As discussed above, the parties agree that the Project would trigger the requirement to apply for an MCP special permit only if it would generate more than 250 vehicle trips per diem. Since there is no way to know what the actual traffic impact will be until the Project is up and running, the prospective impact must be estimated.

Plaintiffs' position here, in essence, is that it is possible that the total number of trips to and from Locus could stay below the MCP threshold, and that, in any event, they are willing to stipulate to keep the number of trips below 250 per diem. Defendants take the opposite position, and argue that it is not relevant whether the number of trips could possibly be less than 250 per diem or whether Plaintiffs are willing to stipulate to a maximum number of trips; rather, Defendants argue, for purposes of determining whether an MCP permit is required, the issue is whether it is possible that the number of trips could exceed 250 per diem. And, they claim, if certain assumptions made by Plaintiffs in their traffic study are eliminated, the possible traffic impact rises to the MCP special

[41] Due to their initial determination that the Project was not a permitted use in the IA zoning district, the Board did not address the merits of the MCP or WRPOD special permit applications. With respect to their application for a MCP special permit, Plaintiffs not only attack the Board's determination that it did not have jurisdiction to issue a MCP special permit, they also seek a determination that the MCP requirements do not apply to the Project, and that they therefore did not actually need to file an application for the MCP special permit in the first place. Plaintiffs do not dispute the need for a WRPOD special permit; rather, they merely attack the Board's determination that it did not have jurisdiction to issue a WRPOD special permit.

permit threshold, thus triggering the requirement to apply for an MCP permit.

Under the optimal conditions that Plaintiffs' traffic study assumes, the number of trips generated by the Project could possibly remain below the MCP threshold. However, if any one of the number of variables in Plaintiff's assumptions were to change (such as, for example, if Plaintiff were to decide to use more than 25% RAP, or if smaller trucks were used), the total number of trips could very reasonably be expected to exceed this threshold.[42] Moreover, the Bylaw's specific incorporation of the standards of the "ITE Trip Generation Manual" means that Plaintiffs' estimates must include internal trips between Locus and the Fletcher Quarry.

In sum, having reviewed the expert evidence adduced by the parties, the court is convinced that the number of trips generated by the Project could possibly range from 260 to 444 per diem. As such, I find that the requirement to obtain an MCP permit for the Project was triggered.[43] I further find that the Board's denial of Plaintiffs' application for a MCP special permit was not "arbitrary and capricious and legally untenable", since such action was taken merely as a corollary to the Board's proper denial of Newport's site plan review application.[44]

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[42] In addition, Plaintiffs' estimates are problematic insofar as they depend upon self-imposed limits to the amount of finished product expected to be produced by the Project that are well below their maximum permitted output under their MassDEP permit. They also rely on non-existent commitments to purchase aggregate from the Fletcher Quarry, non-binding limits on the amount of RAP to be used, and unrealistic assumptions as to the number, size, capacity, and efficiency of vehicles making deliveries to and from Locus. The court makes no finding with respect to the impact of seasonality, whether Fletcher Materials would use its own finished asphalt product in its road works projects, and potential trips relating to employees or deliveries, as these factors are too speculative to be considered reliable evidence of the expected traffic impact of the Project.

[43] Therefore, if Plaintiffs were to resubmit their plans for the Project in a revised form in accordance with the court's instructions herein, their application should be accompanied by an application for a MCP special permit. At that point, Plaintiffs' assumptions and discounts as to the expected number of vehicle trips will become relevant. Likewise relevant at that stage will be Plaintiffs' offer to stipulate to a maximum number of vehicle trips, since the Board's approval of such a special permit could easily be conditioned so as to include this stipulation.

[44] The parties have not addressed the WRPOD special permit application on its merits. As with the Board's denial of Newport's MCP special permit, it appears that the Board denied Newport's WRPOD special permit application as a corollary to their proper denial of Newport's site plan review application. Thus, I decline to find that the Board's denial of Plaintiffs' application for a WRPOD special permit was "arbitrary and capricious and legally untenable".

* * *

In conclusion, I find that the Project (as presently conceived) does not constitute quarrying and mining or light manufacturing, and is therefore not allowed as of right at Locus; as such, the Site Plan Review Decision was not "arbitrary and capricious and legally untenable". I further find that, because the Board properly denied Newport's site plan review, Newport's applications for MCP and WRPOD special permits became moot, so the Board's denial of these applications was proper. The Board's decisions to deny Newport's applications are therefore upheld -- albeit for reasons that, as discussed above, are different than those stated therein.

The case is remanded to the Board. Plaintiffs should resubmit to the Board a modified site plan review application (a) incorporating the sound attenuation barriers recommended by CTA, (b) providing that the Project will employ five or more employees, (c) requesting a variance to operate more than one principal use on the Groton Parcel, and (d) addressing the issue of the Project's power sources. Such a revised application must be also accompanied by revised applications for MCP and WRPOD special permits. If so submitted, it would appear to this court that the Project would then be permitted as of right as a light manufacturing use at Locus, subject to such conditions as the Board may reasonably require in order to approve Newport's special permit applications.

In the interest of avoiding future litigation before this court, the Board's assessment of any such resubmitted plans shall be made in accordance with the findings and rulings contained in this decision. The parties are strongly encouraged to maintain an active and open dialogue throughout the resubmission process in order to resolve any continuing dispute they have in such a way as to ensure that Locus can be most optimally used by Plaintiffs while also accommodating any legitimate

concerns Defendants may have as to the possible effects such use(s) may have.[45]

This court retains jurisdiction over this matter after it is remanded to the Board. Newport's revised site plan review application and MCP and WRPOD special permit applications shall be submitted to the Board (in accordance with the court's above instructions) within four weeks of the date of this Decision, and Newport shall promptly inform the court's sessions clerk when such filing is made. The Board's decisions on Newport's revised applications shall issue not later than four weeks after Newport's filing of same. The parties shall promptly notify the court as to the Board's remand decision and whether further proceedings before this court will be necessary to resolve the parties' dispute.

To the extent that the parties would like a status conference in order to discuss any of the foregoing, they should contact the court's sessions clerk to set up such a conference for Tuesday, January 6, 2015 at 10:00 A.M.

Final judgment in this matter will be held pending the Board's remand decision.

Alexander H. Sands, III
Justice

Dated: December 8, 2014

[45] As discussed above, it is the opinion of this court that the Project would be an ideal use of Locus, given its proximity to the Fletcher Quarry and Newport's rock crushing facility, and based upon the overall industrial nature of the area. And, while Defendants' concerns as to the noise impact and traffic impact of the Project are perfectly legitimate, Plaintiff has signaled a willingness to agree to build noise attenuation barriers and to stipulate to a maximum number of vehicle trips, which would appear to be a perfectly reasonable way to accommodate Defendants' concerns. Any other issues as to compliance with the letter of the Bylaw would seem to be minor issues resolvable through variances.

In sum, this dispute should have been resolved long before it came before this court. Yet, the parties' inability or unwillingness to resolve their disputes has resulted in over four years of costly litigation, including two summary judgment motions, numerous other procedural motions, and a three-day trial -- all of which might have been avoided.